

U. S. ARMY CORPS OF ENGINEERS
NASHVILLE DISTRICT
DRAFT
STATEMENT OF FINDINGS
FOR EXPERIMENTAL MUSSEL RELOCATION ACTIVITIES
BETWEEN TENNESSEE RIVER MILES 194.0-195.0
HARDIN COUNTY, TENNESSEE
AND
FINDINGS OF NO SIGNIFICANT IMPACT
AND
FINDINGS OF 404(b)(1) GUIDELINES COMPLIANCE

1. The U.S. Army Corps of Engineers, Nashville District, and the Cooperating Agency, the Tennessee Valley Authority, propose to perform an experimental mussel relocation method employing routine dredging equipment. A clamshell dredge and split-hulled scow would be used in the experiment. The proposed work consists of removing approximately 1,000 cubic yards of gravel and sand that would be placed in an open water disposal site downstream. All proposed work would take place within a river segment that has been recently disturbed and is currently permitted for commercial sand and gravel extraction. Two treatments are proposed. Treatment 1 would use a modified dredging technique whereby the clamshell dredge would remove the top 1-foot of substrate and place the material into a dump scow one layer deep. Treatment 2 would employ routine dredging protocol whereby 2-3 feet of river substrate would be placed in a dump scow that is filled to capacity. In both treatments, the dump scow would be moved to a disposal site. The bottom of the split-hulled dump scow would be opened slowly and while moving, spread the material in a thin layer of approximately $\frac{1}{2}$ foot deep. Both Treatment 1 and 2 would be evaluated for mussel damage and survival during specific phases in the dredging operation and would be compared to a diver removal and relocation procedure that would also be used at the discharge site. Commercial mussels are the targeted test organisms in this experiment. The purpose of the experimental mussel relocation is to develop a method for safely removing mussel communities prior to maintenance dredging activities. A safe, efficient, timely, and holistic mussel relocation method is needed because mussel communities are occasionally found at maintenance dredging sites. Maintenance dredging is required to maintain a safe and open authorized navigation channel.

2. An Environmental Assessment (EA) was prepared by Ms. Joy Broach, on September 1, 2002. This document followed the National Environmental Policy Act (NEPA), Council for Environmental Quality (CEQ) Regulations Implementing NEPA (40 CFR, 1500-1517), and Corps of Engineers Regulations ER 200-2-2 Policy and Procedures for Implementing NEPA (33 CFR, 230). The EA was prepared to describe existing conditions and evaluate potential impacts associated with the Proposed Action and alternative.

The alternative considered was "No Action," which is defined as no federal action at this time, and no implementation of the experimental mussel relocation method. The "No Action" alternative would have maintained a status quo for current limited mussel relocation methods that incur great expense, time, and excessive handling of freshwater mussels. The EA also considered cumulative effects of the Proposed Action. The experimental mussel relocation method is proposed as a possible procedure to safely relocate large and unavoidable mussel communities prior to required maintenance dredging activities. If successful, this method could be used to protect large mussel communities by relocating as many as possible to selected placement areas. Cultivating new beds would expand the mussel resource including potential listed species. The expected cumulative effect of the experimental relocation method would be to maximize survival of mussels relocated by dredging, and minimize community burial at the appropriate disposal site in order to produce sustainable benthic communities.

3. On May 29, 2002, Public Notice No. 02-43 describing the proposed experimental mussel removal and relocation activities was circulated to members of the public and to agencies with jurisdiction by law or special expertise. Issuance of this Joint Public Notice - the U.S. Army Corps of Engineers, the Tennessee Valley Authority, and the State of Tennessee, satisfied coordination under Section 401 and 404 of the Clean Water Act and scoping requirements under NEPA. The Tennessee Valley Authority (TVA), U.S. Fish and Wildlife Service (USFWS), Tennessee Wildlife Resources Agency (TWRA), and the Tennessee Department of Environment and Conservation (TDEC) responded. Through meetings, telecommunications, informal and formal consultation, the proposal was developed and refined. The proposed test site for the experimental mussel relocation was located in a small area adjacent Diamond Island. However, given the sensitivity of the mussel resources at that location, the agencies located a surrogate site about one mile downstream to perform the experimental mussel relocation.

On May 22, 2002, TWRA located and removed a single listed mussel, the pink mucket (*Lampsilis abrupta*) from the surrogate site within the footprint of the placement area. Formal consultation with the USFWS was initiated following this find. The proposal had built in many safeguards to minimally affect any other potential listed species found, and included a second mussel survey within the footprints of the proposed experimental dredge and placement sites. This action attempts to minimize any possible harm to unknown listed species that could be within the area.

Concurrence was received from the U.S. Fish and Wildlife Service under the Fish and Wildlife Coordination Act (FWCA) and the Endangered Species Act on September 9 2002.

4. The EA did not reveal significant onsite impacts resulting from the proposal. There would be a short-term impact to water quality due to increased turbidity at both the dredge and placement sites. However, this increase is not expected to exceed Tennessee Water Quality Standards. The State of Tennessee has issued an Aquatic Resources Alteration Permit that also serves as Water Quality Certification pursuant to Section 401 of the Clean Water Act on September 13, 2002. At this point in time, all issues have been resolved.

5. Section 106 of the National Historic Preservation Act of 1966 requires that Federal agencies take into account the effects of its undertakings on historic properties included in or eligible for listing in the National Register of Historic Places. No significant cultural resources were found within the project impact area. The Tennessee Historical Commission certified this finding by letter dated June 12, 2002. In accordance with 36 CFR 800.16(y), the proposed activity is an undertaking with no potential to affect historic properties.

6. Additional agency coordination and environmental compliance has been met under the following laws, regulations, and Executive Orders: Clean Air Act and Clean Air Act Conformity Rule, Hazardous, Toxic and Radiological Wastes (HTRW), TVA Act, Floodplain Executive Order, Wetlands Executive Order, and Environmental Justice Executive Order.

7. The proposed experimental mussel relocation will not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing and musseling, plankton, fish, shellfish,

wildlife, and special aquatic sites. The life stages of aquatic life and other wildlife will not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity, and stability, and recreational, aesthetic and economic values will not occur.

8. I have reviewed the EA for the proposed experimental mussel relocation between Tennessee River Miles 194.0-195.0, and responses to Public Notice No. 02-43. In addition, I have evaluated the proposed disposal of dredged material in accordance with the guidelines promulgated by the Administrator of the Environmental Protection Agency pursuant to Section 404(b)(1) of the Clean Water Act. Based on that evaluation, I have determined that the discharge of dredged material, and placement of that dredged material associated with the proposed experimental mussel relocation is specified as complying with the Guidelines. Also, I have determined that the work would not constitute a major federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. Accordingly, I have concluded that an Environmental Impact Statement covering the proposed work is not required. Finally, having weighed the potential benefits that may be accrued as a result of implementing the proposed plan against the reasonably foreseeable detrimental effects, I conclude that the proposed experimental mussel relocation project, as set forth in the EA, would be in the public interest.

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Date

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